

AMENDMENTS TO THE CLAIMS

- 1 1. (Currently Amended) A method for designing a circuit that satisfies user-specified
2 functional requirements, the method comprising the steps of:
3 receiving said user-specified functional requirements over a network from a
4 client;
5 automatically determining, based on said user-specified requirements,
6 components and a topology for constructing said a particular circuit that is
7 constructable on a circuit board;
8 wherein the step of determining components includes determining components
9 that have operational values such that, when said components are arranged
10 according to said topology to form said particular circuit, the particular
11 circuit satisfies said user-specified functional requirements; and
12 delivering to said client over said network component information that identifies
13 said components.

- 1 2. (Original) The method of Claim 1 wherein:
2 the client is executing a browser; and
3 the step of delivering said component information includes delivering to said
4 browser one or more web pages that identify said components.

- 1 3. (Original) The method of Claim 2 wherein the step of delivering includes
2 delivering one or more web pages that identify said components and that include
3 at least one control which, when selected, initiates an operation for placing an
4 order over said network for at least one of said components.

1 4. (Original) The method of Claim 3 wherein the step of automatically
2 determining components includes the steps of:
3 automatically determining, based on said user-specified requirements, a plurality
4 of suggested components, each of which may be used to design a circuit
5 that satisfies said user-specified functional requirements;
6 delivering to said browser over said network one or more suggested component
7 web pages that identify said plurality of suggested components;
8 in response to selection of a suggested component of said plurality of suggested
9 components identified in said one or more suggested component web
10 pages, receiving from said browser over said network a message that
11 identifies the selected suggested component; and
12 automatically determining, based on said user-specified requirements and said
13 selected suggested component, components for constructing a circuit that
14 includes said selected suggested component and that satisfies said user-
15 specified functional requirements.

1 5. (Original) The method of Claim 4 wherein the step of delivering to said browser
2 over said network one or more suggested component web pages includes
3 delivering one or more suggested component web pages that specify, for each
4 suggested component of said plurality of suggested components, a price value.

1 6. (Original) The method of Claim 4 wherein the step of delivering to said browser
2 over said network one or more suggested component web pages includes
3 delivering one or more suggested component web pages that specify, for each
4 suggested component of said plurality of suggested components, a component
5 identifier and one or more operating values.

1 7. (Currently Amended) The method of Claim 3 further comprising the steps of:
2 determining a set of alternative components for a particular component of said
3 components, wherein each alternative component in said set of alternative
4 components may be used in said particular circuit in place of a particular
5 component;

6 delivering to said browser over said network one or more web pages that identify
7 said components and that include a control that is associated said
8 particular component;

9 in response to selection of said control, displaying on said browser said set of
10 alternative components; and

11 in response to selection of one of said alternative components, updating said
12 design to include said selected alternative component in place of said
13 particular component.

1 8. (Original) The method of Claim 3 wherein said operation for placing an order is
2 an operation for placing an order for a kit that includes a plurality of said
3 components.

1 9. (Original) The method of Claim 8 wherein said operation for placing an order is
2 an operation for placing an order for a kit that includes all of said components.

1 10. (Currently Amended) The method of Claim 3 wherein said operation for placing
2 an order is an operation for placing an order with another party for the other party
3 to construct a-said particular circuit.

1 11. (Original) The method of Claim 3 further comprising the step of automatically
2 determining, based on said user-specified requirements, one or more prefabricated
3 circuits for that satisfy said user-specified functional requirements.

1 12. (Original) The method of Claim 11 further comprising the step delivering to said
2 browser over said network one or more web pages that identify said one or more
3 prefabricated circuits and that include at least one control which, when selected,
4 initiates an operation for placing an order over said network for at least one of
5 said one or more prefabricated circuits.

1 13. (Original) The method of Claim 3 wherein:
2 the user-specified functional requirements include one or more input values; and
3 the step of automatically determining components includes
4 applying one or more input values from said user-specified functional
5 requirements to a formula to determine one or more required
6 parameter values, and
7 determining said components based on said one or more required

8 parameter values.

1 14. (Currently Amended) The method of Claim 2 further comprising the steps of:
2 providing data that identifies said components and said topology to a schematic
3 design generation module; and
4 delivering to said browser, based on output from said schematic design generation
5 module, one or more web pages that display a schematic design of said
6 particular circuit that includes said components arranged according to said
7 design.

1 15. (Original) The method of Claim 14 wherein:
2 the user-specified functional requirements include one or more input values; and
3 the step of automatically determining components includes
4 applying one or more input values from said user-specified functional
5 requirements to a formula to determine one or more required
6 parameter values, and
7 determining said components based on said one or more required
8 parameter values.

1 16. (Currently Amended) The method of Claim 14 wherein the browser is operated by
2 a particular user, the method further comprising the steps of:
3 storing, on server-side storage, design data that specifies the design of said
4 particular circuit and data that associates the design data with said user;
5 and

6 delivering to said browser a web page that identifies a set of previously saved
7 designs associated with said user, said previously saved designs including
8 the design of said particular circuit; and
9 in response to user input at said browser, delivering to said browser a web page
10 that includes a schematic diagram generated based on the design data
11 stored on said server-side storage.

1 17. (Currently Amended) The method of Claim 16 further comprising the steps of:
2 in response to user input at said browser that indicates that said design is to be
3 shared with a second user, storing data that associates the design data with
4 said second user;
5 delivering to a second browser operated by said second user a web page that
6 identifies a set of previously saved designs associated with said second
7 user, said previously save designs including the design of said particular
8 circuit; and
9 in response to user input at said second browser, delivering to said second
10 browser a web page that includes a schematic diagram generated based on
11 the design data stored on said server-side.

1 18. (Currently Amended) The method of Claim 14 wherein:
2 the step of automatically determining components includes determining
3 components that have specific operational values;
4 the step of providing data that identifies said components includes providing data
5 that identifies components with said specific operational values; and

6 the step of delivering one or more web pages that display a schematic design of
7 said particular circuit includes delivering to said browser a web page that
8 displays an arrangement of said components with said specific operational
9 values.

1 19. (Currently Amended) A computer-readable medium carrying instructions for
2 designing a circuit that satisfies user-specified functional requirements, the
3 instructions including instructions for performing the steps of:
4 receiving said user-specified functional requirements over a network from a
5 client;
6 automatically determining, based on said user-specified requirements,
7 components and a topology for constructing said a particular circuit that is
8 constructable on a circuit board;
9 wherein the step of determining components includes determining components
10 that have operational values such that, when said components are arranged
11 according to said topology to form said particular circuit, the particular
12 circuit satisfies said user-specified functional requirements; and
13 delivering to said client over said network component information that identifies
14 said components.

1 20. (Original) The computer-readable medium of Claim 19 wherein:
2 the client is executing a browser; and
3 the step of delivering said component information includes delivering to said
4 browser one or more web pages that identify said components.

1 21. (Original) The computer-readable medium of Claim 20 wherein the step of
2 delivering includes delivering one or more web pages that identify said
3 components and that include at least one control which, when selected, initiates an
4 operation for placing an order over said network for at least one of said
5 components.

1 22. (Original) The computer-readable medium of Claim 21 wherein the
2 step of automatically determining components includes the steps of:
3 automatically determining, based on said user-specified requirements, a plurality
4 of suggested components, each of which may be used to design a circuit
5 that satisfies said user-specified functional requirements;
6 delivering to said browser over said network one or more suggested component
7 web pages that identify said plurality of suggested components;
8 in response to selection of a suggested component of said plurality of suggested
9 components identified in said one or more suggested component web
10 pages, receiving from said browser over said network a message that
11 identifies the selected suggested component; and
12 automatically determining, based on said user-specified requirements and said
13 selected suggested component, components for constructing a circuit that
14 includes said selected suggested component and that satisfies said user-
15 specified functional requirements.

1 23. (Original) The computer-readable medium of Claim 22 wherein the step of
2 delivering to said browser over said network one or more suggested component
3 web pages includes delivering one or more suggested component web pages that
4 specify, for each suggested component of said plurality of suggested components,
5 a price value.

1 24. (Original) The computer-readable medium of Claim 22 wherein the step of
2 delivering to said browser over said network one or more suggested component
3 web pages includes delivering one or more suggested component web pages that
4 specify, for each suggested component of said plurality of suggested components,
5 a component identifier and one or more operating values.

1 25. (Currently Amended) The computer-readable medium of Claim 21 further
2 comprising instructions for performing the steps of:
3 determining a set of alternative components for a particular component of said
4 components, wherein each alternative component in said set of alternative
5 components may be used in said particular circuit in place of a particular
6 component;
7 delivering to said browser over said network one or more web pages that identify
8 said components and that include a control that is associated said
9 particular component;
10 in response to selection of said control, displaying on said browser said set of
11 alternative components; and

12 in response to selection of one of said alternative components, updating said
13 design to include said selected alternative component in place of said
14 particular component.

1 26. (Original) The computer-readable medium of Claim 21 wherein said operation for
2 placing an order is an operation for placing an order for a kit that includes a
3 plurality of said components.

1 27. (Original) The computer-readable medium of Claim 26 wherein said operation for
2 placing an order is an operation for placing an order for a kit that includes all of
3 said components.

1 28. (Currently Amended) The computer-readable medium of Claim 21 wherein said
2 operation for placing an order is an operation for placing an order with another
3 party for the other party to construct a-said particular circuit.

1 29. (Original) The computer-readable medium of Claim 21 further comprising
2 instructions for performing the step of automatically determining, based on said
3 user-specified requirements, one or more prefabricated circuits for that satisfy
4 said user-specified functional requirements.

1 30. (Original) The computer-readable medium of Claim 29 further comprising
2 instructions for performing the step delivering to said browser over said network
3 one or more web pages that identify said one or more prefabricated circuits and
4 that include at least one control which, when selected, initiates an operation for

5 placing an order over said network for at least one of said one or more
6 prefabricated circuits.

1 31. (Original) The computer-readable medium of Claim 21 wherein:
2 the user-specified functional requirements include one or more input values; and
3 the step of automatically determining components includes
4 applying one or more input values from said user-specified functional
5 requirements to a formula to determine one or more required
6 parameter values, and
7 determining said components based on said one or more required
8 parameter values.

1 32. (Currently Amended) The computer-readable medium of Claim 20 further
2 comprising the steps of:
3 providing data that identifies said components and said topology to a schematic
4 design generation module; and
5 delivering to said browser, based on output from said schematic design generation
6 module, one or more web pages that display a schematic design of said
7 particular circuit that includes said components arranged according to said
8 design.

1 33. (Original) The computer-readable medium of Claim 32 wherein:
2 the user-specified functional requirements include one or more input values; and
3 the step of automatically determining components includes
4 applying one or more input values from said user-specified functional
5 requirements to a formula to determine one or more required

6 parameter values, and

7 determining said components based on said one or more required

8 parameter values.

1 34. (Currently Amended) The computer-readable medium of Claim 32 wherein the
2 browser is operated by a particular user, the computer-readable medium further
3 comprising instructions for performing the steps of:

4 storing, on server-side storage, design data that specifies the design of said

5 particular circuit and data that associates the design data with said user;

6 and

7 delivering to said browser a web page that identifies a set of previously saved

8 designs associated with said user, said previously saved designs including

9 the design of said particular circuit; and

10 in response to user input at said browser, delivering to said browser a web page

11 that includes a schematic diagram generated based on the design data

12 stored on said server-side storage.

1 35. (Currently Amended) The computer-readable medium of Claim 34 further comprising
2 instructions for performing the steps of:

3 in response to user input at said browser that indicates that said design is to be shared

4 with a second user, storing data that associates the design data with said

5 second user;

6 delivering to a second browser operated by said second user a web page that identifies

7 a set of previously saved designs associated with said second user, said

8 previously save designs including the design of said particular circuit; and

9 in response to user input at said second browser, delivering to said second browser a
10 web page that includes a schematic diagram generated based on the design
11 data stored on said server-side.

1 36. (Currently Amended) The computer-readable medium of Claim 32 wherein:
2 the step of automatically determining components includes determining components
3 that have specific operational values;
4 the step of providing data that identifies said components includes providing data that
5 identifies components with said specific operational values; and
6 the step of delivering one or more web pages that display a schematic design of said
7 particular circuit includes delivering to said browser a web page that displays
8 an arrangement of said components with said specific operational values.